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NAWCAD computer scientist honored at 36th Annual Disability Awards Ceremony

Alec “Ed” Forsman, photogrammetrics team lead at Naval Air Warfare Center Aircraft Division's Atlantic Test Ranges, receives a 2016 Department of Defense Disability Award from Principal Deputy Under Secretary of Defense for Personnel and Readiness Stephanie Barna and Assistant Secretary of the Navy for Manpower and Reserve Affairs Franklin Parker during the 36th annual Department of Defense Disability Awards Ceremony at the Pentagon. The ceremony honored outstanding service members and civilians with disabilities. (U.S. Navy photo by Petty Officer 1st Class Jason Behnke/Released)

PATUXENT RIVER, Md. -- In a ceremony at the Pentagon Oct. 4, Alec “Ed” Forsman, photogrammetrics team lead at the Naval Air Warfare Center Aircraft Division's (NAWCAD) Atlantic Test Ranges (ATR), was awarded an Outstanding DoD Service Members and Civilians with a Disability Award. Forsman was one of 18 DoD employees from across the country who received the award at the ceremony hosted by Secretary of Defense Ash Carter.

The award is the highest honor DoD gives to recognize the contributions of disabled employees. It is presented annually to outstanding service members and civilian employees with disabilities for their contributions in support of the DoD mission.

“We need to keep our military edge as sharp as possible. And our awardees today -- these fine individuals and these departments and components -- are doing just that,” said Carter. “We need a department where everyone who can serve and wants to serve has the full and

equal opportunity to do so. Anything less isn't just plain wrong; it's bad defense policy, and it puts our future strength at risk."

Forsman is a nationally recognized expert for his technical contributions and development of photogrammetric techniques, and in 2013 he was named a Naval Air Systems Command (NAVAIR) Associate Fellow for his advancements in the field of flight test photogrammetry for weapons separation testing, ship suitability testing, ballistics, and mishap reconstruction.

Photogrammetrics is a technique used to extract reliable measurements from video and/or film. ATR photogrammetrics technicians, mathematicians and software developers reduce image data received from digital and high-speed video cameras and other instrumentation sources. Target markings placed on aircraft and attached stores are tracked frame-by-frame for precision analysis of image data.

Forsman said that although he knew his supervisor nominated him for the award, it was a surprise that he was selected. His mother and father accompanied him to the ceremony, along with a family friend and his cousin and family.

Four Senior Executive Service civilians who champion the Individuals with Disabilities program at NAVAIR also attended the ceremony at the Pentagon: Leslie Taylor, NAWCAD executive director and NAVAIR deputy assistant commander for test and evaluation; James S. Meade, NAVAIR assistant commander for acquisition; Stephen Cricchi, NAVAIR assistant commander for corporate operations and total force and Robin Locksley, NAVAIR director flight test engineering, integrated systems evaluation, experimentation and testing. Rob Vargo, ATR director, and Tom Jones, head of the ATR optical systems branch and Forsman's supervisor, also attended.

Forsman has spent his entire 25-year federal career supporting the same group, but not at the test range the entire time. A couple of organizational changes resulted in photogrammetrics becoming an ATR capability almost 20 years ago. Not only has the organization changed, but the work he does is different also.

"Photogrammetrics was nonexistent when I first started," said Forsman. "When it was first developed, processing data was very labor-intensive. Now it's semi-automatic, requiring limited human intervention. Right now I'm working to make it automatic, with even less human workload required."

Forsman leads the ATR team responsible for post-processing of optical and photogrammetric systems and provides quality data to Navy test programs. He provides essential test and evaluation assessments for naval aircraft and weapons systems, and his solutions consistently exceed program expectations in spite of resource limitations. His technical excellence has benefitted multiple aircraft test programs, including for the F-35,

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P-8A, P-3, E-2C and F/A-18, the Joint Precision Approach and Landing System, Joint Direct Attack Munition, Advanced Target Forward Looking Infrared, Standoff Land Attack Missile Expanded Response, and classified projects.

Initiatives he is responsible for include developing the next-generation “TrackEye” system, which ensures successful ship suitability testing for aircraft, reduces data processing turnaround time, improves automatic tracking for range customers and reduces the time and cost of providing photogrammetric analysis. He has improved photogrammetric techniques for more efficient weapon separation testing and participated on projects that resulted in faster tracking, analysis, and data delivery and identified major improvements and efficiencies -- including reduced cycle time and labor costs associated with data reduction, plus annual cost savings and reduced overtime for test programs.

Forsman has co-authored many technical documents and presented numerous papers at national and international conferences and symposia. His research on improvements to photogrammetric target acquisition, tracking, and analysis funded by the Naval Innovative Research and Engineering program will benefit photogrammetry well into the future.

The NAWCAD ATR complex is located at Naval Air Station Patuxent River, Maryland. ATR controls and schedules range assets for flight testing and services in support of naval aviation research, development test and evaluation.